

Defend the Flock: How Avian Influenza Affects Us All

February 25, 2021

Webinar Questions & Answers

DISEASE

1. How do you explain the reason why since 2015 we no longer see this particular avian influenza virus circulating in wild birds in North America?

The ecology of avian influenza viruses is very interesting, complex, and with our current knowledge, unpredictable. We don't fully understand the reasons why avian influenza strains disappear from wild bird populations and other strains emerge or reappear. Researchers have identified some factors that appear to influence the persistence of avian influenza virus in wild bird populations, including weather, shifts in bird migration patterns, and development of immunity in birds previously exposed to avian influenza viruses.

2. With the devastating consequences of an avian influenza outbreak why have many states stopped surveillance testing?

All fifty U.S. States test poultry for avian influenza. In 2020, well over 1 million avian influenza tests were conducted on large and small poultry farms throughout the United States. We're on track to perform a similar number of tests in 2021. Some states have expanded and increased their baseline surveillance testing since 2015 especially during spring and fall wild bird migratory seasons. Companies and producers impacted by highly pathogenic avian influenza (HPAI) in 2015 know how important on-going surveillance efforts coordinated with a timely response prevents spread of HPAI.

3. Feed can be a fomite for the avian influenza virus. Why was it not mentioned in the Spread by Indirect Contact section?

The items listed on the slide are just three of many examples of things that can spread germs by indirect contact. You are correct that feed is one of them, and it's addressed in Principle #12 of the [14 NPIP Biosecurity Principles](#). For tips to prevent feed from being a pathway for germs to get into your flock, check out the [Feed and Replacement Litter Checklist](#) in the [Defend the Flock Resource Center](#).

4. Are there any correlations with avian influenza outbreaks and seasons (either from bird migration and/or temperatures)?

Animal health officials around the world recognize a pattern of avian influenza outbreaks occurring in cooler months of the year. An interesting observation is that since 2014, all highly pathogenic avian influenza outbreaks in the United States were identified in the months December through June. Our seemingly long “avian influenza season” is due in part to the varied climate throughout the country and the wide range of wild bird species that spend at least a few months of the year in the United States.

5. How do you tell the difference between highly pathogenic avian influenza vs a regular upper respiratory infection?

Highly pathogenic avian influenza and virulent Newcastle disease can quickly kill a high proportion of the flock. The mortality rate from other poultry respiratory infections is usually not as high. The only way to tell for certain what germ is causing a respiratory illness is to perform laboratory tests. Your veterinarian, State Veterinarian, or veterinary diagnostic laboratory can test your flock to find the cause.

6. Here in Southern California, we have been struggling with an outbreak of virulent Newcastle disease recently. Can you comment on the similarities and differences in terms of biosecurity for the different diseases?

The biosecurity principles help protect flocks against any contagious disease of poultry. The measures that reduce the risk of introducing the avian influenza virus to your flock also reduce the risk of introducing virulent Newcastle disease virus.

VACCINES

7. Please tell about the vaccines to prevent highly pathogenic avian influenza and low pathogenic avian influenza.

Vaccination against different avian influenza virus subtypes has been used in a variety of poultry species. Avian influenza vaccine has been documented to be effective in reducing virus shedding and preventing illness and death in poultry.

Emergency vaccination has not been implemented in the recent outbreaks in the United States. USDA APHIS' primary response strategy to end a highly pathogenic avian influenza outbreak is stamping-out without vaccination, a method considered to be the most effective and rapid way to eradicate the disease from the nation's flocks. Under certain conditions and if an appropriate vaccine is available, an emergency vaccination strategy could be considered, particularly for specific types of birds, such as valuable breeding stock or endangered exotic birds. To learn

more about a potential emergency vaccination strategy against avian influenza, see the [USDA APHIS HPAI Response Plan](#).

8. Is there any vaccine that has been used in the past for low pathogenic or highly pathogenic avian influenza?

Yes, vaccine has been used in the past in the United States to control small-scale low pathogenic avian influenza outbreaks. Vaccination of turkey breeders to protect against influenza viruses from swine herds is often used in states with large swine populations and where swine herds are near turkey breeder flocks. Vaccination has not been implemented in the recent highly pathogenic avian influenza outbreaks.

9. Are there any vaccines that are commercially available at smaller scale for backyard flock owners (chickens)?

Yes, small flock owners can purchase several types of vaccines for their poultry, including vaccines against Marek's disease, Newcastle disease, infectious bronchitis, and fowl pox, and others.

10. H5 avian influenza is considered low transmission between poultry and human and also between human and human. Why not apply routine H5 avian influenza vaccination program instead of stamping out?

A routine avian influenza vaccination program is theoretically possible. However, vaccinating the billions of domestic poultry grown in the United States every year has practical drawbacks. A nationwide vaccination campaign may not be effective if the vaccine is not an excellent match for the circulating H5 influenza virus type and any mutated strains. Also, a widespread H5 avian influenza vaccination program would be extremely expensive and result in other severe economic consequences, such as loss of international trade.

INTERNATIONAL

11. Last week we heard in the news about H5N8 infections in Human in Russia and one mortality. Is there any information about this virus? Is it a new mutation? What should we expect?

In February 2021, the World Health Organization published a report of H5N8 infection in seven people who worked on a highly pathogenic avian influenza affected poultry farm in Russia. You can read the report here: [Human infection with avian influenza A \(H5N8\) – the Russian Federation](#). The people who were exposed to the H5N8 virus reported no signs of illness. Public health officials are investigating the incident, so expect additional reports to follow. Based on preliminary information, public health experts have assessed the risk of human-to-human transmission of this virus to be low.

12. Is the National Poultry Improvement Plan (NPIP) AI Clean Compartmentalization being recognized by other countries? What efforts are being made to get this program more widely accepted in other countries?

The National Poultry Improvement Plan, an industry-State-Federal cooperative organization, developed management guidelines in 2014 for the Avian Influenza Clean Compartment for primary poultry breeders. In 2017, a primary poultry breeding company achieved recognition by NPIP as the first U.S. AI Clean Compartment. The purpose of the program is to provide international trading partners with confidence in the health status of imported breeding stock. Companies with this certification are recognized for operating at high levels and exceeding basic biosecurity standards. No foreign country has recognized the U.S. AI Clean Compartment yet. USDA APHIS and poultry industry partners continue to educate trading partners about the program and have communicated with more than a dozen countries to encourage acceptance.

BACKYARD

13. For a new “backyard poultry farm” where is the safest place to acquire chickens? Is it safer, meaning is the risk reduced if you incubate eggs and raise hatchlings rather than acquire parents and allow reproduction to occur naturally? Can chickens become infected by non-domestic, non-farm birds like owls, cardinals, bluebirds etc. you typically see in your backyard and have little to no control over?

The younger the bird, the lower the risk of starting a flock with a contagious poultry disease. Hatching eggs or day-old poultry from a National Poultry Improvement Plan participant are the least risky ways to acquire disease tested and clean poultry. The riskiest choices would be adult birds that have commingled with others, such as birds brought home from auctions, flea markets, or swap meets.

Yes, wild birds can introduce contagious poultry disease to your flock. Tips to minimize contact between wild birds and your flock include:

- Keep feeders and drinkers in a covered area.
- Avoid spilled feed. Use feeders at correct height and give feed and treats in the feeder, not on the ground.
- Rodent proof feeders.
- Use rodent traps and bait around the coop.
- Do not feed wildlife, especially waterfowl.
- If there is an open water source (for example, a pond) on your property that waterfowl visit, prevent your poultry from accessing it.

14. For backyard flocks: what are some actionable tips to minimize contact with wild birds that may be carriers, other than limiting free-ranging time and securing feeder inside an enclosed pen?

Below are some tips for minimizing contact between wild birds and your flock:

- Keep feeders and drinkers in a covered area.
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You can also search for websites of pastured poultry producer organizations. Their members have experience and tips to share for managing the risks for free-ranging poultry.

15. I have a small backyard flock. How do I best keep my flock safe from disease? Is there concern with smaller animals and rodents seen in backyard flocks closer to urban communities?

The [Defend the Flock Resource Center](#) has a lot of tips to protect backyard flocks from contagious poultry disease. The biosecurity fact sheets, brochures, checklists, and videos can help you customize a biosecurity plan that is practical for you and your small flock.

Yes, wild birds and rodents can introduce contagious poultry disease to your flock. Tips for minimizing contact between your poultry and wild animals:

- Keep feeders and drinkers in a covered area.
- Avoid spilled feed. Use feeders at correct height and give feed and treats in the feeder, not on the ground.
- Rodent proof feeders.
- Use rodent traps and bait around the coop.
- Do not feed wildlife, especially waterfowl.
- If there is an open water source (for example, a pond) on your property that wild birds visit, prevent your poultry from accessing it.

16. What advice do you all give for backyard poultry owners if there were to be outbreaks in the US?

Creating good biosecurity habits that you use everyday will protect your flock now, as well as later when an outbreak occurs. The [Defend the Flock Resource Center](#) has checklists, infographics, brochures, and videos that can help you create a biosecurity routine today.

If you have sick birds, do not visit a neighbor who has birds or ask them to come over to your property to check your birds. Instead, take photos or videos of the problems in the flock, and contact your nearest veterinary diagnostic laboratory for help in finding the cause of bird illness.

You can also prepare by finding out how to contact your State Animal Health Officials, so that you'll be connected to poultry health news and quickly learn about response activities if a poultry disease outbreak occurs in your area.

17. What cleaners do you recommend to disinfect and clean the coop and equipment? Other than Activated Oxine and Vircon S., what other cleaners can be used that are safe for poultry?

For best results, first clean the coop and equipment to remove any visible dirt. Allow them to dry before applying an EPA-registered disinfectant according to label directions. Washing with soap and water and drying can kill 90% of germs and allows your disinfectant to have maximum effect on the few germs left behind by the cleaning step.

You can choose from many products on the [Environmental Protection Agency list](#) of registered disinfectants with label claims for effectiveness against avian influenza virus. For much more detail about cleaning and disinfection procedures on farms, see [USDA APHIS Standard Operating Procedures: Cleaning and Disinfection](#).

EGGS

18. What is the risk of contamination and contracting illness with egg consumption by humans? How do I keep my flock safe and anyone eating their eggs safe? If a flock is infected, should eggs be destroyed as well as the flock being put down? This is all new to me as a new backyard flock owner.

The risk of human food-borne illness, such as salmonellosis, from consuming eggs is greatly reduced by only using eggs from a healthy flock, as well as properly handling and cooking eggs for consumption.

Any medication given to a hen can potentially end up in her eggs and threaten the health of a person eating them. Consult a veterinarian if you suspect illness in your flock and before using any medication for laying hens. Cooperative Extension Service has published articles about backyard flocks egg production, including [Safe Handling of Eggs from Small and Backyard Flocks](#).

There is no evidence that avian influenza virus can be transmitted to humans through eating contaminated poultry products. When a flock is depopulated due to avian influenza, the eggs are also destroyed to prevent contaminated eggs from spreading the virus to other birds.

19. If you work grocery and one egg is broken, why can't we take a second and wash the others off. They don't even go to compost.

Grocery store companies develop their egg quality and safety policies using guidance from the Food and Drug Administration, local food safety authorities, and other resources. Your

employer is probably your best contact to answer your questions about workplace policies and to consider your suggestions.

Consumers can find general information about safely handling eggs on the [Food and Drug Administration website](#).

EXOTIC BIRDS

20. What are the concerns for parrot owners? Upon an outbreak in the county, if the parrots are immediately no longer allowed access to any outdoor aviaries, does that keep them safe, if other protocols are practiced?

Parrots are susceptible to avian influenza, so parrot owners should consider the risks to their birds. Keeping them indoors during a nearby avian influenza outbreak is one important biosecurity measure, along with reducing the risk of exposure to the virus carried by visitors, other birds, and potentially contaminated things like cages, toys, or food and water. [Defend the Flock resources](#) and biosecurity principles are applicable or adaptable to pet bird collections as well as domestic poultry flocks.

21. What are the concerns for zoos with exotic and endangered bird collections?

All birds are susceptible to avian influenza, and the disease is a concern for zoos and other collections of exotic birds. Facilities with exotic birds should create and implement a biosecurity plan and prepare to respond to an avian influenza outbreak in their region or at their facility. The [Zoo and Aquarium All Hazards Partnership](#) helps zoos and exotic wildlife facilities prepare and respond to hazards like avian influenza. The [organization's website](#) contains resources for creating a biosecurity plan and conducting preparedness exercises.

BIOSECURITY

22. Biosecurity is very difficult! On my 12 acres I have a pond which hosts different migrating birds. My neighbor is doing back yard poultry. They both roam freely and while never directly mix they frequently come within 50-100 feet of each other. Other wildlife moves between both groups. This is common all over the northeast. How can we practically maintain good biosecurity in this situation?

You have some challenges in developing your site-specific biosecurity plan! Even though you can't completely eliminate risks, don't be discouraged. You can take measures to protect your flock by focusing on big risks and things you can control.

In your case, your birds' potential contact with the neighbor's birds and wild animals are probably the greatest risks for transmission of poultry disease germs. Sturdy, tight fencing (consider overhead netting, too) will be very important to keep your birds in and all other animals out. If you can maintain a minimum of 30 feet separation between your birds and the neighbor flock, that might be the best you can do under the circumstances.

Keeping weeds short, trimming bushes, and banishing clutter will help you deter rodents and wild birds from hanging out. Get rid of water sources, outdoor feeders, and spilled feed that might attract wild birds. Take a look at the [Defend the Flock Resources Resource Center](#) for other ideas of practical measures that you might be able to use with your flock.

23. Is there a safe way to free range your poultry?

Poultry kept outdoors are potentially exposed to wild birds, rodents, and other wild animals that not only prey on your birds and consume their food, but also can carry germs that cause poultry disease. You can reduce the risk of transmission (and predation), but probably not make it completely safe, by taking measures to keep other animals from visiting your free-range flock.

If you can choose the location of your pasture, pick a site away from other poultry flocks and natural water sources, such as a pond, that might attract waterfowl. Good fencing is a first step in setting up your free-range area, including overhead barriers to wild birds like netting, deterrent wires, or sunshades. Eliminate places for wild animals to hide by weeding, mowing, and picking up clutter. Don't provide attractive food and water sources to wild birds and other animals: keep feeders and feed bins covered or inside a building and promptly clean up feed spills.

Check out the [Defend the Flock Resources Resource Center](#) for other ideas of practical measures that can be used to reduce the risk to a free-range flock.

24. What considerations are there as far as building design for cage-free flocks?

We recommend giving close attention to the [14 NPIP Biosecurity Principles](#) as you design your cage-free facility. Among other important considerations, determine where you will put your Perimeter Buffer Area on the premises and where you will draw a Line of Separation around each poultry house. Think about where vehicles, people, and equipment will enter and exit the property and each poultry house, and how they will be cleaned and disinfected. Some advance planning for excluding wild birds, rodents, and insects is also important.

25. I am interested in providing agrotourism on my farm. What would be my best biosecurity system to implement for my flock?

To create your farm-specific biosecurity plan, you can take advantage of several resources specifically available to animal exhibitors and farms open to tourists. The National Association of Public Health Veterinarians has compiled information on reducing risks from animals in

public settings on [their website](#). Your plan should protect against the potential two-way traffic of contagious disease: people could carry germs to your flock, and your animals could be a source of germs for people.

DEFEND THE FLOCK PROGRAM

26. How do we reach small flock producers and let them know about and participate in biosecurity best practices or other programs such as premises ID?

It's challenging to reach all types of small flock owners, because they are very diverse in the species they keep, their production methods, and their reasons for keeping poultry. We have a few suggestions for contacts reaching a wide range of stakeholders with small flocks. Consider outreach through these organizations' meetings, conferences, website content, or newsletters:

- Associations for poultry exhibitors which are organized at national, regional, and local levels
- Organizations supporting small farms and niche poultry production, such as pastured poultry producers
- Cooperative Extension Service offices and 4-H leaders
- Numerous social media groups and online forums focused on backyard poultry topics
- Mail-order hatcheries who provide website content or written materials for their customers.

27. Are there any plans to share your social media content directly onto Facebook pages for backyard flock owners? There are dozens of groups with 10,000+ members each, and a lot of misinformation and posts ignoring biosecurity rules.

USDA APHIS regularly shares information about biosecurity and other issues important for flock owners on the Defend the Flock Facebook and Twitter pages. We also maintain a library of videos on YouTube. All flock owners are encouraged to follow these pages and share the content with their networks.